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ABSTRACT

The purpose of this study was to investigate the relationship of reflection-impulsivity, verbal comprehension, and achievement motivation to level of moral development. Reflection-impulsivity is a cognitive style; verbal comprehension a measurement of intelligence. A random sample of 40 boys and 40 girls was selected from the senior classes of two Catholic high schools and a battery of tests was administered to the sample. Results of the analysis showed that the total error measure of reflection-impulsivity and verbal comprehension correlated significantly with the level of moral development. However, only the error measure of reflection-impulsivity was found to be a predictor variable of level of moral development. (Author/ND)

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COGNITIVE STYLE, ACHIEVEMENT MOTIVATION,
INTELLIGENCE AND LEVEL OF MORAL DEVELOPMENT
AMONG ADOLESCENTS *

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This study investigated the relationship of reflection-impulsivity, a cognitive style, verbal comprehension, a measure of intelligence, and achievement motivation to level of moral development. A random sample of 40 boys and 40 girls was selected from the senior classes of two Catholic high schools. Results of the stepwise multiple regression analysis showed that total error measure (E) of reflection-impulsivity and verbal comprehension correlated significantly at the .05 level with level of moral development. Only the E measure of reflection-impulsivity, however, was found to be a predictor variable of level of moral development.

"Cognitive Style, Achievement
Motivation, Intelligence and Level
of Moral Development Among
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OBJECTIVES AND THEORETICAL FRAMEWORK

The bulk of published research in the area of moral development in the cognitive-developmental vein owes an intellectual debt to Jean Piaget and Lawrence Kohlberg. Kohlberg's approach explicitly emphasizes the cognitive aspects of moral development, while only indirectly alluding to the motivational dimension and the relationship of the motivational to the cognitive. To our knowledge, no research has been published relating the motivational dimension to moral development.

The purpose of the present study was to investigate the relationship which selected cognitive and motivational variables have to level of moral development. The two cognitive variables were the cognitive style of reflection-impulsivity as measured by Kagen's Matching Familiar Figures Test, and verbal comprehension as measured by the Wechsler Adult Intelligence Scale. The motivational variable selected was need for achievement as defined by Atkinson's theoretical model and measured by Mehrabian's Resultant Achievement Motivation Scale.

METHODS

The strategy for data collection was to assemble a random sample of

subjects and then test them individually. The order in which the instruments of the test battery were administered was as follows: Matching Familiar Figures Test (MFF), the Standard Moral Judgement Interview, the Resultant Achievement Motivation Scales (RAMS), and the Comprehension Subtest of the WAIS (CMP). The adolescent-adult version of the MFF was used and measured for first response (RT) and total number of errors (E) were recorded. Both the male and female versions of the RAMS were used. Story 1 from Form A and Story 2 from Form B of the Kohlberg Standard Moral Judgement Interview were used. One story dealt with the mother-daughter relationship while the other dealt with the father-son relationship.

In addition to the measures obtained from the test battery described above, the IQ scores of the subjects were obtained. Since these scores come from different tests, the scores were converted into percentile scales according to the norm of the particular test.

DATA SOURCE

Subjects were selected from two Catholic high schools in the Milwaukee area. Both schools were similar with respect to SES, both reflecting substantially a "middle-middle" class of students. The adolescent age range was chosen because most of the Kohlberg research is based on children and little or no research on adolescent populations is extant. Since religious background apparently has no effect on level of moral development (Kohlberg and Turiel, 1971), the Catholic school sample did not seem to limit the generalizability of the results of the present study.

Senior class lists from both schools were combined to form one pool from which a random sample of 40 boys and 40 girls was selected. Their ages ranged between 17 and 18 years.

RESULTS

Six measures were recorded for each subject: average response time (RT) and total number of errors (E) from the MFF, level of Moral Development (MD), achievement motivation (ACH), verbal comprehension scaled score (CMP) and percentile rank of IQ score (IQ).

The Pearson product-moment method was used to compute the correlations between each of the variables with level of moral development. The "t" test was employed to test the significance of these correlation coefficients. The correlation between E and MD was significant at the .05 level for combined and separate data on boys and girls. CMP correlated significantly with MD at the .05 level for combined data and for the girls' data separately, but not for boys' data separately.

Partial coefficients of correlation were employed to determine the estimated degree of relationship of IQ percentile rank and each of the measures when the effect of the remaining variables was held constant. The estimated degree of relationship was extremely small.

Stepwise multiple regression analysis was used to identify, at the .05 level, which variables, if any, would predict MD. Number of Errors (E) on the MFF was the only predictor variable indentified. The following predictor equations (raw score) were obtained:

For combined data

$$Y_p = -0.0264 (E) + 3.4232$$

For boys' data

$$Y_p = -0.0272 (E) + 3.4432$$

For girls' data

$$Y_p = -0.0268 (E) + 3.4179$$

SIGNIFICANCE OF THE STUDY

The fact that E showed to be a predictor of level of moral development is of theoretical and practical significance. Theoretically, the literature relating the cognitive style of reflection-impulsivity problem solving behavior has been supported when a moral judgement situation is used as the problem solving task. Although causal relationship is not determined in a correlational study, there appears to be some justification for experimental research to explore if any causal relationship exists between reflection-impulsivity and level of moral development. Practically speaking, the educator who wishes to foster mature moral judgement could be advised that reflection-impulsivity might serve as both a curricular objective and as an instructional technique [Kagen (1966) has shown that impulsive students can be trained to be more reflective in their style.] The implication is that the more reflective the student, the more likely he is to make moral judgement at a higher level.